

What is claimed is:

1. A lithium secondary battery comprising:  
an electrode body obtained by winding or laminating a  
positive electrode and a negative electrode via a separator,  
and

a non-aqueous electrolytic solution containing a  
lithium compound as the electrolyte,  
wherein the non-aqueous electrolytic solution contains water  
(H<sub>2</sub>O) and hydrofluoric acid (HF) in a total concentration of  
10,000 ppm or less.

2. A lithium secondary battery according to Claim 1,  
wherein the lithium compound is lithium hexafluorophosphate.

3. A lithium secondary battery according to Claim 1,  
wherein lithium manganese oxide of cubic system spinel  
structure containing lithium and manganese as the main  
components is used as the positive electrode active  
substance.

4. A lithium secondary battery according to Claim 2,  
wherein lithium manganese oxide of cubic system spinel  
structure containing lithium and manganese as the main  
components is used as the positive electrode active  
substance.

5. A lithium secondary battery according to Claim 1,  
wherein a highly graphitized carbon fiber is used as the  
negative electrode active substance.

6. A lithium secondary battery according to Claim 2,  
wherein a highly graphitized carbon fiber is used as the  
negative electrode active substance.

7. A lithium secondary battery according to Claim 3,  
wherein a highly graphitized carbon fiber is used as the

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negative electrode active substance.

8. A lithium secondary battery according to Claim 4, wherein a highly graphitized carbon fiber is used as the negative electrode active substance.

5 9. A lithium secondary battery according to Claim 1, which has a battery capacity of 2 Ah or more.

10. A lithium secondary battery according to Claim 1, which is used in an electric automobile or a hybrid electric automobile.

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